

Verification of Eight Water Security Technologies Timely

Eight water security technologies, called rapid toxicity monitors, have been added to the growing list of technologies—now 252—verified by the U.S. EPA's Environmental Technology Verification Program's (ETV) centers. Included are 69 verifications by the Advanced Monitoring Systems (AMS) Center, which is managed by Battelle. The importance of monitoring for toxic contaminants in water supplies is described in a recent survey conducted by the General Accounting Office (GAO) (see box on page 2).

The verification test was conducted to evaluate the performance of the rapid toxicity technologies in detecting certain toxins in drinking water and their susceptibility to interfering chemicals.

Rapid toxicity technologies use bacteria, enzymes, or small crustaceans that produce light or use oxygen at a steady rate in the absence of toxic contaminants. Toxic contaminants in drinking water are indicated by a

(See Verification on Page 2)

Technology: ToxTrak™
Company: Hach Company
Address: P.O. Box 389
Loveland, CO 80539
Phone: 970-669-3050
Fax: 970-669-2932
Web Site: <http://www.hach.com>
E-Mail: mhaibric@hach.com



Technology: BioTox™
Company: Hidex Oy
Address: Mustionkatu 2
FIN-20750, Turku, Finland
Phone: 358 2 275 0557
Fax: 358 2 241 0075
Web Site: www.hidex.com
E-Mail: risto.juvonen@hidex.com



Technology: Deltatox®
Company: Strategic Diagnostics Inc.
Address: 111 Pencader Drive
Newark, DE 19702
Phone: 302-456-6789
Fax: 302-456-6782
Web Site: <http://www.sdix.com/>
E-mail: bferguson@sdix.com



Technology: Microtox®
Company: Strategic Diagnostics Inc.
See the above listing for complete information.



Technology: Eclox
Company: Severn Trent Services
Address: 3000 Advance Lane
Colmar, PA 18915
Phone: 215-997-4000
Fax: 215-997-4062
Web Site: <http://www.severn-trentservices.com/>



Technology: IQ Toxicity Test™
Company: AquaSurvey, Inc.
Address: 499 Point Breeze Rd.
Flemington, NJ 08822
Phone: 908-788-8700
Fax: 908-788-9165
Web Site: <http://www.aquasurvey.com/index.html>
E-Mail: Mail@AquaSurvey.com



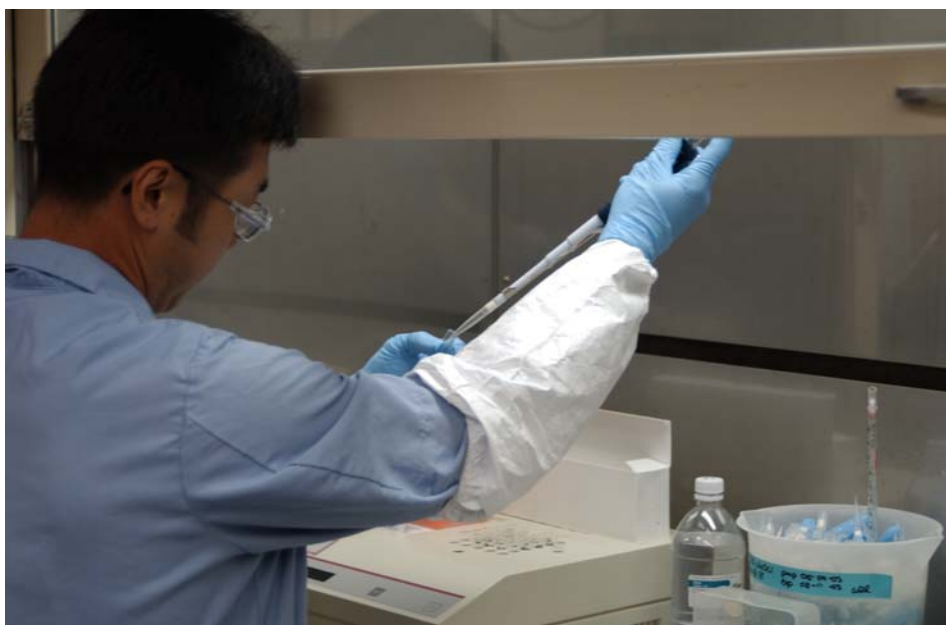
Technology: POLYTOX™
Company: Interlab Supply, Ltd.
Address: 9200 New Trails Drive
The Woodlands, TX 77381
Phone: 888-876-2844
Fax: 281-298-9411
Web Site: <http://www.interlab-supply.com>
E-Mail: pete@interlabsupply.com



Technology: ToxScreen-II
Company: CheckLight, Ltd.
Address: P.O. Box 72
Qiryat Tiv'on 36000, Israel
Phone: 972 4 9930530
Fax: 972 4 9533176
Web Site: <http://www.checklight.co.il/>
E-Mail: info@checklight.co.il



The AMS Center, which is part of the U.S. Environmental Protection Agency's Environmental Technology Verification Program, verifies the performance of technologies that monitor for contaminants and natural species in air, water, and soil. ETV was established to accelerate the implementation of improved environmental technologies through third-party verification testing and reporting of the technologies' performance. The ETV process provides purchasers and permittees with an independent assessment of the technology they are buying or permitting and facilitates multi-state acceptance. For further information, contact Helen Latham at Battelle, 505 King Ave., Columbus, Ohio 43201-2693; Phone 614-424-4062; Fax 614-424-5601; E-mail lathamh@battelle.org.



A Battelle verification staff member prepares a sample from the Microtox technology for analysis.

Verification *(from Page 1)*

change in the color or intensity of light or by a change in the rate of oxygen use. All of the monitors tested were subjected to a control (or “clean”) drinking water sample and a drinking water sample containing contaminants or possible

interferents. A difference between the response of the monitor to the control drinking water and that of the drinking water containing the contaminants or interferents indicates each monitor’s ability to detect the presence of contaminants or interferents.

Prior to their use in water security applications, rapid toxicity monitors had been used at facilities that discharge effluents, such as industrial production facilities, to monitor the ecological impact of the effluents.

Rapid toxicity technologies are not designed to identify a specific toxic substance or biological agent (e.g., anthrax, cyanide, heavy metals) or to measure the amount of a toxin in the sample.

Their key role is to indicate quickly if a water sample is potentially toxic if ingested. This initial indication should prompt more definitive laboratory measurements to confirm the presence of a contaminant that is toxic to humans.

The verification reports and verification statements are posted on the ETV Web site at www.epa.gov/etv. Then click on Verified Technologies.

Verification Tests Planned

Beach monitoring technologies.

Vendors interested in participating in the verification test should contact Amy Swiecichowski, 561-656-6304 or swiecichowskia@battelle.org.

Cyanide analyzers. A second round of this test is being planned. Interested vendors should contact Ryan James, 614-424-7954, or jamesr@battelle.org.

Mercury CEMs. A third round is to be conducted for mercury CEMs at a coal-fired power plant. Interested vendors or partners should contact Tom Kelly, 614-424-3495, or kellyt@battelle.org.

Nutrient monitors. Interested vendors should contact Rachel Sell, 614-424-3579, or sellr@battelle.org.

Portable analyzers for arsenic in water. A third round will be conducted in fresh water and drinking water in Duxbury, MA. Interested vendors should contact Patty White, 781-952-5279, or whitepi@battelle.org.

Rapid polymerase chain reaction (PCR) technologies. Vendors interested in participating in a verification test for these technologies should contact Stephanie Buehler, 614-424-3972, or buehlers@battelle.org.

Water Distribution Systems Vulnerable, GAO Reports

Experts surveyed by the General Accounting Office (GAO) found that drinking water utilities are highly vulnerable to terrorist threats.

The panel concluded that physical disruption, bioterrorism, chemical contamination, and cyber attack could disrupt the security of the more than 170,000 public water utilities in the U.S.

The complete report was released June 16, 2003, and is available at: www.gao.gov/cgi-bin/getrpt?GAO-04-29.

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